Technical data, esp. on Plexiglas and Crystallite

The Rohm&Haas ad in MP,10/38, pp. 60-1 on Plexiglas, describes it as: " a thermoplastic, acrylic resin of outstanding transparency, light weight and toughness, available in plane and curved sheets," says Rohm & Haas are the "originators of acrylic resin products, and. the first tp produce them commercially- maintain their leadership innthe development of new and improved forms of these materials."

Modern Plastics, 12/38, p. 62, under the head "News" has this announcement: of the "commercial availability of a new ester, dibutyl sebacate, for use as a plasticizer in nitrocellulose and other plastic compounds, has just been announced by" R&H and "we have since learned that a transparent Plexiglas sheet played a very important part in the development of the new Polaroid glass-inspection polariscope described in a recent issue", etc.~~XXXXXXX ZZZZZZZZZZZZZZZZZZZZZZZZZ~~

Photex W-66

MP7/39, under "News", p. 62: Photex W-66, an important addition to its line of solvent free, water dispersed, colorless, synthetic resins, developed for the production of permanent finishes on textiles, paper and other water-absorbent materials is announced by" R&H, etc.

Photex A-20

From MP, 11/39, p. 120, under "News": R&H"annpunces a recently-reveloped resin gum, Photex A-20."

From MP,10/39, p. 427, ~~R&H ad~~ RP&CCo. ad:
"For over 15 years the Resinous Products and Chemical Co. has specialized in one thing - synthetic resins. This specialization, supported by a continuous program of research, has enabled us to anticipate the needs of an industry by introducing today the resins or tomorrow." The a list of "significant" pioneering.

R&H ad in MP, 1/41, p.22: "...manufacturers of leather and textile chemicals, specialties and finishes...crystal-clear acrylic plastics...synthetic insecticides...fungicides...and other industrial chemicals."

Part of an article on the history of plastics in the 8/40 MP; on "acrylic resin plastics", says:that Rohm did much of the fundamental work; first prepared in this country by R&H in 1931, i.e., acrylic resins, acryloid and plexigum. Plexiglas came in 1936, Lucite in 1937. Two of the many patents pertaining to the preparation of these colorless, transparent resins are those of Neher, Hollander and Hill(R). Hollander's is US 1,937,323, 11/28/33; Hill's is US 1,980,483,11/13/34. There are a tabulation of the properties and uses of those products described in the article.

"Acrylic Resins," article by D¾Frederick, MP 10/39,pp22ff. In this article are photos of the Model 166 Martin bomber with Plexiglas cockpit enclosure. In the article Frederick says that acrylic resins are due mainly to Dr. Otto Rohm, who published in 1901, "In 1931 acrylic resins were first made available in commercial quantities in this country." A year earlier, in the 10/38 issue of MP, Frederick had an article on the same subject (this issue is a special one every year, giving the results of annual competitions, etc.) Pp.16,126ff.
The article includes a photo of a Consolidated XPB2Y military plane "equiped with Plexiglas windows, turrets and cockpit enclosures". This is a big 4-motor job.

"The industrial development and application of the acrylic resins have been mainly due to the research of Dr. Otto Rohm of Darmstaedt, Germany, who, with his collaborators, has continuously worked with these materials since his original publication with Von Pechmann in 1901"..."The laminated glass industry has for several years employed the acrylic resins as an intermediate layer in themanufacture of saftey glass"...."The colorless transparency and freedom from haze of acrylic-laminated glass is unequalled by glass laminated with any any other plastic."

Immersion in boiling water has no effect on lamination. Very easily cut. No discoloration of acrylic resins until a temperature of more than 350° F is reached..."...The optical properties of the acrylic resins make them suitable for use in spectacle lenses, camera lenses, magnifying glasses and protective goggles."
"Modling powders"..pretty good stuff, seemingly best...

"Ethylcellulose Resins" article by William Koch and D.R.Wiggam (Hercules Powder), MP 10/38, pp. 28,124. Cellulose derivatives in plastics:high tensil strength and elasticity, etc.

"Synthetic Resin Coatings", article by W.T.Pearce, MP 10/38, pp90ff. ~~XXXXXXXXXX~~

"Resins in Wood Fabrication", article by R.Koch, MP 10/38, pp. 264 ff. ~~XXXXX~~ RP&PCo. photo shows views of woodwork in Mellon Gallery in D.C., "Tego bonded".
"...Not until a phenolic resin film in successful use in Europe became available in this country was it convinced that weatherproof plywood had become practically and economically possible" (circa 1934-5). Resin film superior to other adhesives in the manufacture of plywood. Finished product also better. Now used in radio cabinets, furniture, air-conditioning equipment, airplanes, boats, autos (station wagons, organs, household things and houses. Film sold by the roll.
"Thus, when this article indicates only a few resins as having been found practicable, it is in the knowledge that to date practically the entire commercial demand has been supplied by not more than 4 products, one of which has far outweighed the other three."

From MP 10/38:

As of late 1938, the following is a breakdown of the raw materiials used in the manufacture of plastics utilized in the production of molded/fabricated parts: Following the name of the company or companies is the total number of companies in this field:

Acids, sebaric:RP&CCo (3)

Methyl Hexyl Ketone:RP&CCo.(alone)

Methyl Methacrylate:RP&CCo,R&H (3-other duP, with Lucite)

Methylamines:R&H (2)

Molding compounds, urea-formaldehyde:R&H (4)

Plasticizers:RP&CCo.(19)

Resin bonds for plywood and Veneer:RP&CCo.(9)

Resin solutions:RP&CCo, R&H (14)

Resins, cast:R&H (6)

Resins, glycerol:RP&CCo.(7)

Resins, phenol: RP&CCo.,R&H (13)

Resins, synthetic:RP&CCo.,R&H (21)

Resins,urea:RP&CCo.(7)

These companies are found in 13 of the 99 different classifications in the entire undustry, with 4 duplications.(R&H,6;RP&CCo.,11) Neither nor any of the other R&H companies manufacture machinery, equipment and supplies used in the production and in the molding and fabrication of plastic articles, at least for resale to the industry, nor are they custom molders, fabricators, designers essential to the production of the finished articles of plastic composition materials.

As of late 1939:
Plastics and raw materials:(66)

Denture materials:R&H
Lacquers, cellulose:RP&CCo.
Lacquers, resin:RP&CCo.
Resins, Oil soluble:RP&CCo.
Resins, varnish making:RP&CCo.
Resins, water-soluble: RP&CCo.

These are apparently additions during the year.

The 1938 directory of trade names and manufacturers or plastics. The last column gives the composition of the product. These are only the R&H and RP&CCo listings.
Varnish and lacquers: (All RP&CCo in this division)

Acryloid	acrylic
Amberlac	alkyd
Acrydol	acrylic
Amberlite	Alkyd
Amberol	phenolic
Aquaplex	alkyd emulsion
Duraplex	alkyd
Paraplex.	alkyd
Uformite	lamenated urea-formaldehyde resin

Miscellaneous plastics:

Plexigum	R&H	acrylic resin for laminated glass
Primal	R&H	acrylic resin for leather finishes
RHonite	R&H	urea resin
RHoplex	R&H	acrylic resin for textile finishes
Tego	RP&CCo.	phenolic resin for plywood

~~[illegible]~~
acrylate and methacrylate resin
The ~~methyl methacrylate~~ products or R&H and RP&CCo. are Plexiglas and Crystallite. Plexiglas is available in sheets up to 2½ inches thick, rods and tubes;Crystallite is sold as a powder.